

Caterina Ciminelli

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

66

papers

1,163

citations

17

h-index

33

g-index

79

ext. papers

1,470

ext. citations

3.1

avg, IF

4.48

L-index

#	Paper	IF	Citations
66	Chip-Scaled Ka-Band Photonic Linearly Chirped Microwave Waveform Generator. <i>Frontiers in Physics</i> , 2022 , 10,	3.9	3
65	High performance and tunable optical pump-rejection filter for quantum photonic systems. <i>Optics and Laser Technology</i> , 2021 , 139, 106978	4.2	5
64	Exploring the Limit of Multiplexed Near-Field Optical Trapping. <i>ACS Photonics</i> , 2021 , 8, 2060-2066	6.3	5
63	Design of a large bandwidth 2 D interferometric switching cell based on a sub-wavelength grating. <i>Journal of Optics (United Kingdom)</i> , 2021 , 23, 085801	1.7	6
62	Role of magnetic skyrmions for the solution of the shortest path problem. <i>Journal of Magnetism and Magnetic Materials</i> , 2021 , 532, 167977	2.8	4
61	Novel Micro-Nano Optoelectronic Biosensor for Label-Free Real-Time Biofilm Monitoring. <i>Biosensors</i> , 2021 , 11,	5.9	6
60	Comprehensive mathematical modelling of ultra-high Q grating-assisted ring resonators. <i>Journal of Optics (United Kingdom)</i> , 2020 , 22, 035802	1.7	13
59	Electro-Photonic Chip-Scale Microsystem for Label-Free Single Bacteria Monitoring. <i>Lecture Notes in Electrical Engineering</i> , 2019 , 53-58	0.2	
58	Ultra-Compact Tuneable Notch Filter Using Silicon Photonic Crystal Ring Resonator. <i>Journal of Lightwave Technology</i> , 2019 , 37, 2970-2980	4	16
57	Silicon photonic biosensors. <i>IET Optoelectronics</i> , 2019 , 13, 48-54	1.5	8
56	Monitoring of individual bacteria using electro-photonic traps. <i>Biomedical Optics Express</i> , 2019 , 10, 3463-3471	3.9	15
55	Measured radiation effects on InGaAsP/InP ring resonators for space applications. <i>Optics Express</i> , 2019 , 27, 24434-24444	3.3	8
54	Design of a Label-Free Multiplexed Biosensing Platform Based on an Ultracompact Plasmonic Resonant Cavity. <i>Lecture Notes in Electrical Engineering</i> , 2019 , 263-267	0.2	
53	Integrated Microphotonic Switching Matrices for Flexible and Broadband Telecom Satellite Payloads 2019 ,		2
52	Integrated Photonic and Plasmonic Resonant Devices for Label-Free Biosensing and Trapping at the Nanoscale. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2019 , 216, 1800561	1.6	6
51	Design of an ultra-compact graphene-based integrated microphotonic tunable delay line. <i>Optics Express</i> , 2018 , 26, 4593-4604	3.3	18
50	. <i>IEEE Photonics Journal</i> , 2018 , 10, 1-11	1.8	3

49	Photonic and Plasmonic Nanotweezing of Nano- and Microscale Particles. <i>Applied Spectroscopy</i> , 2017 , 71, 367-390	3.1	18
48	Design of a New Ultracompact Resonant Plasmonic Multi-Analyte Label-Free Biosensing Platform. <i>Sensors</i> , 2017 , 17,	3.8	11
47	Planar photonic gyroscopes for satellite attitude control 2017 ,		3
46	Ultra-high Q/V hybrid cavity for strong light-matter interaction. <i>APL Photonics</i> , 2017 , 2, 086101	5.2	30
45	Rigorous model for the design of ultra-high Q-factor resonant cavities 2016 ,		6
44	A High-Q InP Resonant Angular Velocity Sensor for a Monolithically Integrated Optical Gyroscope. <i>IEEE Photonics Journal</i> , 2016 , 8, 1-19	1.8	45
43	Photonics in Space 2016 ,		15
42	Modeling and Design of a New Flexible Graphene-on-Silicon Schottky Junction Solar Cell. <i>Electronics (Switzerland)</i> , 2016 , 5, 73	2.6	6
41	New microphotonic resonant devices for label-free biosensing 2016 ,		1
40	Low-loss passive waveguides in a generic InP foundry process via local diffusion of zinc. <i>Optics Express</i> , 2015 , 23, 25143-57	3.3	29
39	New ultrasensitive resonant photonic platform for label-free biosensing. <i>Optics Express</i> , 2015 , 23, 28593-604	3.6	33
38	Special Issue on the Third Mediterranean Photonics Conference (MePhoCo2014). <i>IEEE Photonics Journal</i> , 2014 , 6, 1-2	1.8	
37	System test of an optoelectronic gyroscope based on a high Q -factor InP ring resonator. <i>Optical Engineering</i> , 2014 , 53, 127104	1.1	8
36	High performance SOI microring resonator for biochemical sensing. <i>Optics and Laser Technology</i> , 2014 , 59, 60-67	4.2	65
35	Structural polarization conversion in integrated optical vertically stacked ring resonators. <i>Optics and Laser Technology</i> , 2013 , 48, 294-301	4.2	3
34	Label-free optical resonant sensors for biochemical applications. <i>Progress in Quantum Electronics</i> , 2013 , 37, 51-107	9.1	134
33	Effect of fabrication tolerances on the performance of two-dimensional polymer photonic crystal channel drop filters: a theoretical investigation based on the finite element method. <i>Optical Engineering</i> , 2013 , 52, 097104	1.1	3
32	Theoretical investigation of indium phosphide buried ring resonators for new angular velocity sensors. <i>Optical Engineering</i> , 2013 , 52, 024601	1.1	16

31	High performance InP ring resonator for new generation monolithically integrated optical gyroscopes. <i>Optics Express</i> , 2013 , 21, 556-64	3.3	82
30	Design, fabrication, and preliminary test results of a new InGaAsP/InP high-Q ring resonator for gyro applications 2012 ,		10
29	Coupled ring resonators: Physical effects and potential applications 2012 ,		1
28	. <i>IEEE Photonics Journal</i> , 2012 , 4, 1844-1854	1.8	40
27	Advances in Gyroscope Technologies 2011 ,		30
26	Innovative Integrated-Optic Resonator for Angular Rate Sensing: Design and Experimental Characterization. <i>Lecture Notes in Electrical Engineering</i> , 2011 , 345-349	0.2	1
25	Simulation and fabrication of a new photonic biosensor 2010 ,		3
24	Photonic technologies for angular velocity sensing. <i>Advances in Optics and Photonics</i> , 2010 , 2, 370	16.7	151
23	Fast light generation through velocity manipulation in two vertically-stacked ring resonators. <i>Optics Express</i> , 2010 , 18, 2973-86	3.3	25
22	Fast and Accurate Investigation of 2-D Multilayered Photonic Crystals by a 3-D Model Based on the Green's Function. <i>IEEE Journal of Quantum Electronics</i> , 2010 , 46, 1549-1560	2	0
21	Phononic and photonic band gap structures: modelling and applications. <i>Physics Procedia</i> , 2010 , 3, 357-364		64
20	Three-dimensional modelling of scattering loss in InGaAsP/InP and silica-on-silicon bent waveguides. <i>Journal of the European Optical Society-Rapid Publications</i> , 2009 , 4,	2.5	17
19	Quality factor and finesse optimization in buried InGaAsP/InP ring resonators. <i>Journal of the European Optical Society-Rapid Publications</i> , 2009 , 4,	2.5	8
18	Design of passive ring resonators to be used for sensing applications. <i>Journal of the European Optical Society-Rapid Publications</i> , 2009 , 4,	2.5	2
17	Efficient Chemical Sensing by Coupled Slot SOI Waveguides. <i>Sensors</i> , 2009 , 9, 1012-32	3.8	50
16	Investigation of a point-like and plane-wave excitation in 2D photonic bandgap microcavities using Green's function method. <i>Optical and Quantum Electronics</i> , 2009 , 41, 255-265	2.4	1
15	Fully three-dimensional accurate modeling of scattering loss in optical waveguides. <i>Optical and Quantum Electronics</i> , 2009 , 41, 285-298	2.4	16
14	Optimized Design of Integrated Optical Angular Velocity Sensors Based on a Passive Ring Resonator. <i>Journal of Lightwave Technology</i> , 2009 , 27, 2658-2666	4	22

13	PHOTONIC CRYSTALS: TOWARDS A NOVEL GENERATION OF INTEGRATED OPTICAL DEVICES FOR CHEMICAL AND BIOLOGICAL DETECTION. <i>Series in Optics and Photonics</i> , 2009 , 146-172		2
12	High Coupling Efficiency in 2D Guided-Wave Photonic Band Gap Extended Microcavities for Sensing Applications. <i>Current Analytical Chemistry</i> , 2008 , 4, 362-370	1.7	2
11	A Multi-objective Genetic Algorithm Based Approach to the Optimization of Oligonucleotide Microarray Production Process. <i>Lecture Notes in Computer Science</i> , 2008 , 1039-1046	0.9	2
10	Photonic crystal and photonic wire nano-photonics based on silicon-on-insulator. <i>New Journal of Physics</i> , 2006 , 8, 256-256	2.9	10
9	. <i>Journal of Lightwave Technology</i> , 2006 , 24, 470-476	4	2
8	Modeling and design of two-dimensional guided-wave photonic band-gap devices. <i>Journal of Lightwave Technology</i> , 2005 , 23, 886-901	4	17
7	Parametric analysis of 2D guided-wave photonic band gap structures. <i>Optics Express</i> , 2005 , 13, 9729-46	3.3	6
6	Photonic crystal and photonic wire device structures 2005 ,		1
5	A new integrated optical angular velocity sensor 2005 ,		33
4	Optical and structural characterization of Z-cut LiNbO/sub 3/ optical waveguides formed in a mixed proton source. <i>Journal of Lightwave Technology</i> , 2004 , 22, 820-826	4	2
3	Optical switching technologies and their applications 2001 ,		3
2	Performance enhancement of nonlinear lithium niobate couplers via double titanium and magnesium diffusion. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 1999 , 5, 84-97	3	5
1	Exact analysis of cascaded second-order nonlinearity in rotated Ti:LiNbO3 Couplers. <i>Optical and Quantum Electronics</i> , 1999 , 31, 655-674	2.4	3